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CONTRACTUAL PROVISIONS FOR TRAINING IN INDUSTRIAL PROJECTS IN THE FOOD-PROCESSING SECTOR**

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INTRODUCTION

1. Manpower training has always been viewed as a crucial aspect of industrial development. The recent experience of developing countries embarking on rapid industrialization programmes clearly indicated that the lack of adequate infrastructure and organization for training constituted a major constraint to the industrialization process. Although attention concentrated predominantly on the measures and efforts undertaken by individual developing countries, the role of international co-operation in the field of industrial training has also been emphasized. Within that context it is believed that training undertaken in the course of implementation of industrial projects involving foreign inputs (technology, equipment, financing, etc.) may significantly supplement the efforts of the recipient countries. Consequently, due attention should be given to the adequate formulation of contractual provisions which define the scope, forms, organization and financing in the area of industrial training.

2. The need for improving contractual conditions for manpower training has also been reflected in the directions and programme of work of UNIDO. The Fourth General Conference of UNIDO held at Vienna in 1984, while emphasizing the role of accelerated development of human resources for industrialization, recommended that "agreements and contracts on the transfer of technology to the developing countries should include provisions for the necessary training of the local human resources required for the maintenance, operation and management of the industry and technology in question; the UNIDO should evolve a checklist of provisions relating to training for potential inclusion in contracts."1/ Similarly, the First Consultation on the Training of Industrial Manpower held at Stuttgart in 1982 recommended that UNIDO should "compile a checklist to assist in the preparation of training contracts."2/

1/ Report of the Fourth General Conference of the United Nations Industrial Development Organization, ID/CONF.5/46, Vienna, 1984, para.11, p.14.

2/ Report of the First Consultation on the Training of Industrial Manpower, Stuttgart, FRG, 22-26 November 1982, UNIDO, ID/294, para.20(b), p.9.

3. The present study concentrates primarily on the food-processing sector in developing countries. Herewith, it might be recalled that the First Consultation on the Food-Processing Industry, held at The Hague in 1981, recommended that UNIDO should prepare a "checklist of specific elements suggested for inclusion in agreements, permitting efficient co-operation between the parties based on mutual benefit and including training as an important element."[3/] The specific aspects of contractual arrangements for technology transfer in the food-processing industry were also discussed during the Ninth Meeting of Heads of Technology Transfer Registries held in Beijing in 1984. The meeting recommended that UNIDO continues the work in that sector "with particular reference to the integrated character of the sector and the role of local research and development carried out either by national or foreign laboratories."[4/]

4. While complying partially with the above recommendations, the UNIDO secretariat presented an information paper during the Second Consultation on the Food-Processing Industry with Special Emphasis on Vegetable Oils and Fats held at Copenhagen in 1984, which identified the overall trends and most essential issues relating to the use of various contractual arrangements in this sector.[5/] The present study shall be seen as a continuation of the previous one, while concentrating the analysis exclusively on the questions pertaining to industrial training. In both studies the empirical analysis of contracts either concluded or negotiated between partners from developed and developing countries provided a background for drawing up final conclusions and recommendations. In the latter study, however, the scope of empirical data under investigation has been broadened as the additional contracts and data have been included in the sample.

3/ Report of the First Consultation on the Food-Processing Industry, The Hague, Netherlands, 9-13 November 1981, UNIDO, ID/278, para.2, p.6.

4/ Report of the Ninth Meeting of Heads of Technology Transfer Registries, Beijing, PRC, 8-12 October 1984, UNIDO, ID/WG.429/8, para.31, p.10.

5/ J. Cieslik, "Trends and Issues in Contractual Arrangements in the Food-Processing Industry", UNIDO, ID/WG.427/11, 1984.

5. The study concentrates primarily on contractual provisions related to training which form a part of industrial projects in the food-processing sector. The contracts drawn exclusively for training constitute a distinct category and are not covered in this study, mainly because the use of such contracts in the food-processing industry seem to be quite limited as none of the agreements surveyed belonged to this category.[6/]

6. The study consists of four chapters. In the first chapter the manpower requirements and the specific features of training in the food-processing industry have been identified, and an attempt was made to extend the integrated approach to the area of manpower training. Against this background, the role, organization and forms of training within the framework of various contractual arrangements have been evaluated in the subsequent chapters. Section II deals with the contract conditions for the basic training required for the operation, management and maintenance of production facilities in the food-processing industry in developing countries. Following the integrated approach the specific contractual provisions for training of the suppliers of raw materials, quality control, research and development, and marketing personnel are discussed in Chapter III. Chapter IV has been devoted exclusively to the financial aspects of training and the corresponding contract clauses. The major conclusions and recommendations are summarized in the final section of the paper.

7. The study has been primarily oriented towards practical matters and therefore general theoretical deliberations are limited. An attempt was made to identify all essential aspects of the training component in the industrial projects in the food-processing sector and to offer pragmatic suggestions as to the adequate formulation of the respective contractual conditions from the point of view of the recipient, i.e. developing country. The paper is therefore offered as supportive material to be used as a tool by enterprises from developing countries elaborating and negotiating contracts with foreign partners as well as government institutions responsible for the evaluation and approval of such contracts. Needless to say, suggestions and recommendations

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6/ The work of UNIDO on training contracts shall be acknowledged. See M. Salem, Legal Aspects of Industrial Training, UNIDO, 1981.

contained in the study cannot be applied automatically but they shall be confronted with the actual conditions and overall policy framework for the implementation of industrial projects in a given country.

I. MANPOWER REQUIREMENTS IN THE FOOD-PROCESSING SECTOR AND PROVISION OF TRAINING IN FOREIGN-LINKED INDUSTRIAL PROJECTS

(i) The distinctive features of the food-processing industry and the manpower requirements in developing countries

8. In order to identify the possible implications of training linked with industrial projects involving foreign participation, one has to take into consideration the distinctive features of food processing as compared to other branches of the manufacturing industry. Without going into detail it might be stated that food processing is characterized by relative technological simplicity as in the majority of sub-branches of the industry the process technology is well-known and straight forward. As a result, the most acute manpower gap in the food-processing sector in developing countries occurs in the middle-range skill levels, whereas only a limited number of sub-branches is dependent on highly professional knowledge. Yet, the recent developments especially in the field of genetic engineering and biotechnology may substantially affect the overall situation by introducing sophisticated processes as well.

9. Another characteristic aspect is the heterogenity of food processing with respect to the size of operations. In fact, no clear trend has been identified as to the higher profitability of large-scale and centralized versus smaller-scale and dispersed facilities.[7/] Obviously, the industrial projects involving foreign inputs like technology, equipment and equity tend to concentrate on the larger-scale, technology-intensive processes but even then the scope of viable alternatives as to the plant size is relatively wider as compared to other industries. The visible heterogenity of the food-processing industry reflected in the parallel operations of small-, medium- and large-scale production facilities has obvious implications on the organization, scope and directions of industrial training to be provided within this sector.

7/ See "Outline for a Policy Framework for the Transfer, Application and Development of Technology in the Food-Processing Sector", UNCTAD, TD/B/C.6/AC.6/3, 1982, pp.4-6.

10. The inadequate and irregular supply of raw materials has been widely recognized as a major constraint in the expansion of food-processing in developing countries. This relates in the first place to the insufficient volume of production supplied by farmers and growers which in turn hinders full capacity utilization of the newly established plants. The geographical dispersion of the suppliers calls for the organization of an effective procurement system including the intermediate stages. On the other hand the inferior and/or not uniform quality of raw materials creates severe obstacles in the production process especially while using imported equipment and technology (in which case the quality requirements for production inputs are typically adjusted to the conditions prevailing in developed countries). The investor has to cope with the problems mentioned above, well before a new facility has been put into operation, inter alia, by making necessary arrangements for training of the suppliers of raw materials.

11. The development of the food-processing industry requires corresponding shifts in the consumption patterns. In most cases this represents a major change in the structure of consumption towards an increased share of processed products replacing raw foods. Such a process does not occur automatically. It requires careful preparation of the marketing campaign especially in the case of branded products of foreign origin as well as the organization of an effective distribution system including wholesale and retail outlets. This again calls for a well-coordinated effort aimed at developing marketing skills. The experience of developing countries clearly shows that the marketing barrier and corresponding manpower gap negatively affects exports of processed foods from this region.

12. The critical role played by the quality control system represents another distinctive feature of the food-processing industry. Such a system begins with the production and handling of primary inputs and continues through stages of processing up to the final point of consumption. Inadequate quality control not only negatively affects the whole production process but may also represent a direct threat to the human life as the resulting failures cannot be easily detected before reaching consumers. Therefore the quality control specialists are viewed as an indispensable category of personnel in the newly established food-processing plants.

13. The establishment of small laboratory facilities to permit accurate monitoring of quality and process control leads eventually to the launching of research and development work aimed at, in the first place, the modification and adaptation of the existing products and processes to local conditions. In the case of foreign-linked projects, in many sub-branches of the food-processing industry domestic research and development becomes an acute necessity since technologies and processes acquired from highly industrialized countries do not meet requirements resulting from the wide variety of situations reflecting the different cultural, climatic and socio-economic patterns prevailing in the developing world. Even when the professionals with adequate formal education are available in a given country, additional highly specialized training is usually required for research and development personnel.

14. The problems and issues outlined above may not be characteristic of food processing only. However their implications for the manufacturing activities in this sector in general, and manpower training in particular, seem to be relatively strong.

(ii) The need for an integrated approach towards manpower training in the food-processing industry

15. The most distinctive features of the food-processing industry pointed out above should be taken into consideration when defining strategies and programmes for its expansion and modernization. As a result of the experience accumulated so far by developing countries the concept of integrated development of this sector emerged. Nowadays the integrated approach has gained wide acceptance as the underlying concept for setting long-term objectives, designing national and regional development plans as well as executing individual industrial projects.[8/] The major proposition of this paper is that the integrated approach shall be extended to the area of manpower training, including that provided within the framework of execution of industrial projects involving foreign inputs. It might be useful at this point, to distinguish between micro and macro perspectives of the integrated development. At the individual project (micro) level, such an approach

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8/ For the description of the concept of integrated development of the food-processing industry see "First Global Study on the Food-Processing Industry", UNIDO, ID/WG.345/3/Rev.1, 1981, pp.83-92.

requires careful evaluation and analysis of the skill requirements necessary for the successful operation of a given undertaking. In view of the analysis conducted in the proceeding section, manpower training cannot be only limited to building up skills for operation, maintenance and management of production facilities which is typical for the overwhelming majority of foreign-linked projects. The training "package" shall also include other components such as the following:

- training of farmers (growers) and intermediate suppliers of raw materials;
- training of marketing personnel including export marketing;
- training of quality control staff;
- training of research and development personnel.

16. The implementation of such an integrated approach towards training in the course of preparation, evaluation and execution of industrial projects is a very complicated task. In the first place a psychological barrier among those involved in project preparation and implementation has to be overcome. Naturally, building up skills of personnel directly responsible for the operation and maintenance of production facilities attracts greater attention whereas other areas of training are viewed as auxiliary with a lower priority. It is quite difficult, under such circumstances, to introduce e.g. the idea of setting up in advance a training programme for the suppliers of raw materials before the equipment has been installed. Secondly, the need for overcoming organizational barriers shall also be mentioned. Let us take the classic example of the supply of machinery under the turn-key arrangements. The supplier, usually the engineering or consulting company, may arrange for basic training as well as the inspection of the reference plant. However he may not have the necessary experience and expertise for conducting specialized training e.g. for marketing personnel, and such training obviously falls beyond the scope of contractual relationship with the supplier.

17. While looking from the macro perspective the integrated approach towards training implies the harmonization of training components in industrial projects with the manpower development programmes and objectives at the country level. This calls for the co-ordination of the government programmes for the extension of the formal education system (university courses, technical and vocational education) with the strategies and policies for expanding and/or modernizing specific industrial branches. In the case of

large-scale projects the integrated approach requires joint, co-ordinated action of the local investors, government and foreign suppliers. Obviously the principal responsibility for the harmonization of individual industrial training efforts with the nationwide manpower development programmes, lies with the government specialized agencies in developing countries. Such objectives might be achieved through the planning process as well as through establishing effective machinery for evaluation and approval of industrial projects with due consideration to the training component.

(iii) The role of training provided under various contractual arrangements

18. As emphasized in the introductory comments, the training of industrial manpower is primarily the responsibility of the developing country itself. A decisive role in that area is being played by the domestic industry, and efforts further reinforced by the effective co-ordination, programmes and facilities sponsored by the governments at the regional and national level. With the present gap in skilled manpower in the food-processing industry of developing countries there is an obvious need for alternative ways of supplementing national action. Improving the conditions for the provision of training in the various contractual arrangements with foreign partners seems to be one of the most promising and feasible directions.

19. The previous empirical study on contractual arrangements in the food-processing industry revealed a great variety of arrangements used in this sector.[9/] If the contracts associated primarily with the erection of a plant and the installation of equipment is also taken into consideration (engineering and consultancy services, construction and engineering works, delivery of machinery and equipment, turn-key), the available spectrum of contractual relationship becomes even wider. Like in other sectors the so-called non-equity forms of foreign involvement are gaining acceptance within the framework of North-South co-operation and are expanding at a faster rate than direct foreign investment.[10/] The scope and conditions

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9/ J. Cieslik, "Trends and Issues ...", op.cit., pp.5-8.

10/ Although contractual arrangements are typically viewed as an alternative to parent-subsidiary relationship it should be born in mind that e.g. licensing agreements are typically concluded between parent and subsidiary companies.

of training rendered under various arrangements depend to a great extent on the type of contract e.g. the difference between turn-key and the pure licensing agreement is quite obvious. We shall concentrate however on the general problems relating to the provision of training so that some conclusions and proposals may not be applicable to certain categories of contracts.

20. For the present study which is limited to the food-processing sector, the personnel undergoing training in the course of execution of projects involving foreign participation has been divided into two broad categories:

- Personnel responsible for the operation, management and maintenance of production facilities;

- Personnel performing additional functions like extending services for suppliers of raw materials, quality control, research and development, marketing, etc.

21. The reason for the above distinctions is mainly a pragmatic one. In the past, major attention was given to the training of personnel belonging to the first category (basic training). As a result substantial experience has been accumulated also in the area of drawing up and negotiating respective contractual clauses. Consequently one can rely on such experience which is reflected, inter alia, in the substantial uniformity and standardization of the relevant contract clauses. With respect to basic training the overall situation in the food-processing sector does not differ substantially from the conditions prevailing in other branches. On the other hand the distinctive features of the food-processing industry are clearly emphasized in the case of training of personnel belonging to the second category. Needless to say, the knowledge and experience on negotiating adequate conditions for this group is very limited.

22. The analysis of the contract conditions indicated that somewhat different problems arise in the case of training performed abroad as compared to that arranged at site in the recipient's country. The alternative forms such as on-the-job training under the supervision of expatriate instructors, specialized workshops, "sandwich-type" arrangements combining academic input with work experience as well as issues relating to the organization and functioning of plant training centres also require different approaches.

II. CONTRACT CONDITIONS FOR PROVISION OF BASIC TRAINING IN FOREIGN-LINKED INDUSTRIAL PROJECTS IN THE FOOD-PROCESSING SECTOR

(i) Existing trends and recommended ways of defining the training component in industrial projects

23. The empirical analysis of clauses in the sample of contracts concluded in the food-processing sector[11/] helped to identify the most common ways of defining obligations of partners with respect to training:

(a) In a number of contracts the question of training was not mentioned at all or was formulated very vaguely so that practically no obligation was imposed upon the foreign partner. This was typical for pure licensing agreements covering solely the transmission of property rights; it was also found in a few management and technical assistance agreements;

(b) The provisions pertinent to training were listed among other services to be rendered by the foreign partner without identifying details as to the scope, forms and conditions. This was found in several management and technical service agreements. A standard clause of that type reads as follows:

"During the contract period FOREIGN PARTNER shall do the best of its ability to perform the duties of:

-selecting and training technical, operational and maintenance staff for the efficient utilization of its production facilities and distribution services."

(c) The training component was referred to in the main contract but detailed conditions were left to further, separate agreement between the partners. Contracts with such a clause were mainly know-how licensing agreements, e.g.:

11/ The analysis was based on a sample of 23 contracts either implemented or currently negotiated with foreign firms by local partners from Argentina, Ethiopia, Indonesia, Kenya, Malaysia, Nigeria and the Philippines. Additional information provided by the respective Government institutions on the prevailing trends and policies with respect to the training component in the foreign-linked projects have also been used throughout the study.

"The LICENSOR shall train or procure the training of such employees of the LICENSEE as may be from time to time arranged between LICENSOR and the LICENSEE and it is agreed that such training may involve a visit to any other company and country."

(d) The contract included a specific provision for training while defining upper limit for services to be provided by the foreign partner. Few contracts for the delivery of plant equipment contained such a clause, e.g.:

"OWNER'S technicians numbering up to three shall receive training at the SUPPLIER'S or sub-supplier's works for a period of eight weeks each. Round-trip airtickets for the trainees shall be paid by the OWNER. The SUPPLIER shall pay all expenses abroad including pocket money".

(e) In a limited number of contracts (mostly turn-key deliveries) detailed provisions attempted to define precisely the objectives, scope and conditions for training.

24. In summing up, the survey revealed that in the overwhelming majority of contracts in the food-processing sector, the training component was defined in a very general manner (alternatives b, c, and d). Before making comments and recommendations on this subject, it might be worthwhile to look for arguments justifying such an approach. They were often voiced during the discussions held with the local enterpreneurs in developing countries and the representatives of government institutions responsible for the evaluation and approval of contracts with foreign partners.

25. In principle the respondents were fully aware of the important role of training conducted within the framework of implementation of industrial projects. It was pointed out, however, that training was not the main objective of the contracts in question but that greater attention had been given to the principal elements such as equipment or proprietory technology. It was argued that in the area of training there was usually a substantial convergency of interest between foreign and local partners. Consequently conflicts and disputes in that area arose very seldom. It was also stipulated that the detailed coverage of the training component naturally results in additional financial obligations of the recipient. In some cases this might be avoided with the general-type provisions.

26. While commenting on the line of thinking outlined above, one has to question whether the objectives of the local partner implementing the industrial project might be accomplished without adequate training. While leaving aside short-term, trouble-shooting arrangements or agreements made specifically for the transmission of property rights in other cases the answer might be definitely negative.[12/] Therefore, even though training does not formally constitute the main objective of the contract, it shall always be viewed as an indispensable component and integral part of the agreement.

27. Secondly, the generally favourable attitude of the foreign supplier towards training cannot be substituted for his experience and availability of qualified staff and facilities necessary for conducting comprehensive training programmes. In the previous chapter, typical obstacles in the food-processing sector were mentioned which resulted because of the fact that the general contractors who supplied machinery and equipment including turn-key deliveries and related engineering services, did not run production facilities themselves. In fact the organizational capacity for rendering training services shall be seen as a principal criteria for choosing the partner, so that detailed requirements in that area can already be defined at the preparatory stage. On the other hand, it is much better that the supplier already knows during negotiations that he is expected to provide equipment, technology and adequate training.

28. The negative financial implications of the detailed formulation of the training component are self-evident but there seems to be no rational alternative to such a solution. The practical experience clearly indicated that the expectations to obtain comprehensive training at little or no cost are not well founded. On the other hand a clear definition of the training component and corresponding financial obligations provides a sound background for evaluation of effectiveness of resources allocated for training and for imposing measures in order to achieve a maximum contribution from the supplier within the given contractual framework.

12/ Some doubts might arise with respect to the management and technical service agreements resulting directly from the lack of adequately trained nationals. In such a case, the training component should be included in order to lessen gradually the dependence on the expatriate staff.

29. The foregoing analysis leads to the conclusion that a detailed comprehensive formulation of the training component in various contractual arrangements is definitely preferred to the general-type clauses. It is obvious, however, that a proper balance shall be maintained between the training component and the provisions covering other critical issues within the overall structure of the contract. Based on the experience in drawing up and negotiating contracts (including that of UNIDO with elaborating model contracts), it is recommended that the definition of the training component in the contract consists of three inter-related elements:

(i) Training section in the main body of the contract;
(ii) Training annexure;
(iii) Provision for additional arrangements between partners for defining detailed training programme.

(i) Training section

30. The detailed formulation of the training section in the main body of the contract shall depend on the type of agreement but in principle it shall cover the following elements:

- Statement on the agreement of both partners that the adequate training of the recipient's personnel is a necessary condition for the fulfilment of the objectives of the contract;

- Main objectives of the training programme;

- Reference to the training annexure;

- Reference to the additional arrangements.

(ii) Training annexure

31. The training annexure which forms an integral part of the contract shall contain clauses defining the scope, forms and basic conditions for training including, inter alia:

- Place of training;

- Organization and forms of training;

- Number, category of personnel and duration of training;

- Assignment of the supplier's personnel;

- Supply of teaching materials and equipment;

- Selection of trainees;

- Procedures for evaluating of progress and performance of training;

- Principles of co-operation between partners in the field of training;

- Financial conditions of rendering training services.

(iii) **Additional arrangements for defining detailed training programmes**

32. As a rule it is not possible, at the negotiation stage, to identify and agree upon all elements of the training programme related to the execution of a given project. Therefore a useful solution is to refer in the main body of the contract to the additional arrangements between partners (e.g. co-ordination meetings) made specifically for elaborating detailed time schedules, contents of training, training methods, procedures of evaluation, etc.

(ii) Defining the scope and organization of basic training

33. According to the final recommendation made in the previous section, the scope of training services to be rendered by the foreign partner as well as the methods for achieving the stated objectives should be adequately defined in the contract. The relevant provisions might be conveniently grouped in the

training annexure. Alternative approaches to this problem as well as possible solutions are briefly outlined below giving due consideration to the distinctive features of the food-processing industry:[13/]

(a) **Place of training**

34. One of the principal questions to be resolved in the contract is the locations(s) of training activities. In the complex industrial projects in developing countries, the combination of training abroad of a limited number of supervisory personnel with the extensive training of lower level staff at site (during the pre-production period, in the course of transmitting know-how or rendering technical assistance and management services) is typically accomplished. In view of the specific conditions prevailing in the food-processing industry the location of foreign training requires careful analysis and consideration before signing the agreement. Since the suppliers of machinery and plant equipment do not, as a rule, operate food-processing units themselves, necessary arrangements shall be made for selecting reference facilities with adequate training conditions. Secondly, experience has shown that the knowledge and experience acquired in the reference plants in developed countries are of limited use for developing countries in view of the fact that overall conditions affecting the production process differ substantially. Consequently, it is suggested that training in other developing countries which have already accumulated experience with the respective technology and/or equipment be considered as a useful alternative while implementing projects in the food-processing industry.

(b) **Forms of training**

35. As pointed out before, there is a substantial variety of forms and methods through which a successful training programme might be accomplished. Obviously the choice of the form of training largely depends on the specific conditions of implementation of a given process or technology and the type of contract. With respect to the practical experience in the food-processing sector there is need for reverting to, at least partially, a visible

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13/ Financial aspects are not dealt with here since they will be discussed separately in Chapter IV.

propensity towards using standard forms, i.e. allocating trainees to the different plant units under supervision of the supplier's personnel. Without undermining the effectiveness of this form, it is recommended that due attention be given to alternative or supplementary arrangements such as specialized workshops, seminar or sandwich-type training combining in-plant work experience with academic input.

(c) **Provision of materials, equipment and facilities for training**

36. A well-defined training programme may require essential material inputs which need to be acquired or elaborated well in advance. The most typical example is the supply of training manuals and relevant documentation. Especially for inexperienced foreign suppliers the elaboration of such materials may involve substantial effort, time and expenditure (e.g. for translation). This calls for the adequate formulation of the respective conditions in the contract. Additional questions to be resolved relate to the property rights of training manuals and documentation. In the licensing agreements the licensor often imposes protective measures against leakage of confidential information by limiting the number of copies of manuals as well as right to use them only in the course and place of training. It is therefore recommended that the contract specifically provides for the sufficient number of copies of training manuals to be freely used by the recipient's personnel with due consideration to the secrecy requirements.

37. In some cases specialized equipment is needed exclusively for training purposes. This must be stipulated in the contract since a given item has to be added to the list of equipment to be provided by the supplier. Recently one may have noted a favourable trend which is reflected in the establishment of the training units or centres in the newly established food-processing facilities involving foreign inputs. Needless to say, it is highly desirable that such a centre becomes operational during the pre-production stage. Although the detailed aspects of the organization and operation of such a unit can be left to further agreement between partners the key matters, especially those resulting in financial obligations shall be explicitly stated in the contract.

(d) **Category, number of personnel and selection of trainees**

38. The principal way of defining the scope of the training component and relevant services is by indicating the number and categories of staff as well as duration of training (in man/months or man/weeks). The relevant data is usually included in the training annexure in a tabular form. On the other hand, the foreign partner often insists on a precise definition of qualifications and work experience of prospective trainees. This is usually required in order to avoid the situation where candidates are selected for reasons other than their job responsibilities. Unfortunately this is not unusual in the food-processing industry in developing countries and therefore the above requirement should not be withheld provided similar conditions are imposed on the supplier's personnel assigned for training. The following clause which should be included in the introductory part of the training annexure, may serve as an example on how the balanced formulation of the rights and obligations of partners in that respect can be ensured:

"The CLIENT shall undertake to supply personnel for training with qualifications and experience recommended by the SUPPLIER, and agreed by the CLIENT".

(e) **Assignment of supplier's personnel for training**

39. In order to assure a high quality of training, the recipient shall insist on a detailed formulation of contract clauses relating to the number, categories, duration of assignment and qualifications of the supplier's personnel responsible for the execution and supervision of the training programmes. It might be reasonably assumed that without such provisions the supplier will attempt to limit the number of training instructors, especially those sent abroad. Specific provisions shall additionally define the duties and responsibilities of the training co-ordinator designated by the foreign partner.

(f) **Verification of the effectiveness of the training programme**

40. Establishing formal procedure for the verification of the professional skills and knowledge of staff may significantly contribute to the improvement of the training programme. The said procedure involves the final examinations

after completing training courses and issuing pass certificates. Typically the evaluation of the trainee's performance is made by the foreign partner providing or procuring relevant services. Such an arrangement has obvious shortcomings but under circumstances prevailing in developing countries alternative solutions are not practical (e.g. joint examinations or using third, independent partners). As a minimum requirement, however, the contract should stipulate the obligation of the supplier to notify the client of the planned examination so that the latter may attend, if he so wishes.

(g) Principles of co-operation between partners in the course of implementation of the training programme

41. Even if the training programme has been well defined and prepared in advance there might still be a need for its modification or adjustment, e.g. due to last minute decisions, replacement of trained personne' due to lack of competence or misconduct, etc. The flexibility on such matters seems to serve the interest of both partners. In terms of contractual provisions, it can be achieved by broadly outlining the potential areas of eventual adjustment and by the explicit statement of the principle of mutual consent which shall be applied in such cases.

III. PROJECT-RELATED TRAINING OF THE SUPPLIERS OF RAW MATERIALS AND THE MARKETING, QUALITY CONTROL, AND RESEARCH AND DEVELOPMENT PERSONNEL

(i) Introductory comments

42. The analysis conducted in Chapter I has led to the general conclusion that in view of the distinctive features of the food-processing industry the project-related skill formation shall be of an integrated character, i.e. due attention shall be given to the auxiliary training of suppliers of raw materials, marketing, quality control and research and development personnel. Unfortunately, in actual practice, the implementation of industrial projects does not conform with the above recommendation. Project-related training is concentrated predominantly on acquiring knowledge and experience for operating and maintaining imported equipment and assimilating process technology. Consequently, clauses pertaining to improving skills of quality control or

marketing personnel can be seldom found in contracts concluded in the food-processing sector. In view of the limited practical experience and lack of generally-acceptable standards for defining contractual conditions for "auxiliary" training, only broad suggestions are offered below on the improvement of the overall framework for such training.

(ii) Training of the suppliers of raw materials

43. The scope of potential involvement of the foreign partner in the training of the suppliers of raw materials depends primarily, on the method of procurement. Let us consider first the situation where the local investor retains direct control over farms or plantations supplying agricultural products for further processing. The installation and/or modernization of the processing facilities calls for corresponding adjustments in planting, harvesting, maintenance, transportation and general farm/plantation management. Unfortunately, contractual services rendered by the foreign partner are not, as a rule, extended to the agricultural part of the project and this applies to training as well. Only in one project - for sugar manufacturing in Kenya - has the technical service agreement included separate provisions on services related to the operations of sugar-cane plantation. The foreign experts assigned to the agricultural sector were expected, inter alia, to carry out on-the-job training of Kenyan personnel and to advise on staff training needs and programmes. Unfortunately further details were not stipulated in the agreement.

44. At present the most popular method of procurement is contract farming where financial and organizational aspects of supply are covered by various contractual arrangements with independent farmers and growers. Theoretically, the current stable relationship provides a favourable framework for backward-linked training. The above considerations are fully applicable to the situation where the co-operative organization is involved in establishing food-processing facilities. In the latter case, training offered by the foreign partner can be integrated within the programmes launched by the co-operative while using existing facilities. Unfortunately respective provisions were found only in one previously mentioned technical assistance agreement where experts assigned to sugar-cane cultivation were directly involved in the supervision and training of independent growers.

45. An analysis of the existing practice leads to the conclusion that the backward-linked training opportunities are largely overlooked by the local investors entering into contractual arrangements in the food-processing industry. This tendency however is already reflected at the stage of project preparation and has obvious implications for negotiating contracts with foreign partners.

46. Project-related training might be seen as an important contribution towards solving the problem of inadequate supply (in qualitative and quantitative terms) of raw materials for food processing in developing countries. Therefore steps and measures aimed at improving the contractual framework for such training shall be encouraged. For practical reasons it is suggested that conditions for training of suppliers be defined separately from basic training. Although forms of training may vary according to the project or local environment, the short-term courses and seminars combined with practical demonstration seem to be most suitable for such purposes.

(iii) Training of marketing personnel

47. Training in the area of marketing becomes critical for those food-processing projects which are dependent on the acceptance by the local consumers of a new product. A joint venture between Nigerian and Brazilian partners to manufacture and distribute cocoa-based confectionery products in Nigeria serves as a typical example of such project. In order to introduce a successful marketing campaign and an efficient distribution system the agreement stipulates the provision of the following services by the Brazilian partner:

- Training of three sales supervisors for the period of six months in Brazil;
- Training in Nigeria of one employee who shall assume permanently the chocolate marketing and distribution responsibilities after completing the training programme.

48. Training in marketing involves a small number of personnel. The programme combines foreign component (on-the-job or sandwich-type training) with local workshops emphasizing domestic factors and conditions having a strong impact on the effectiveness of the various marketing techniques.

49. While negotiating the provisions relating to training in marketing in technology transfer agreements, recipients often face stiff opposition from the licensors. This occurs when the foreign licensor offers a similar product on the local market and is interested in retaining its marketing advantage as long as possible. One possible way of assuring co-operation of the licensor in the above-mentioned field is to express all licensing fees and royalties as a percentage of net sales of the product manufactured under licence.

50. The conflict of interest becomes even more acute when it comes to the transmission of experience and skills in the area of export marketing. The suppliers of technology and services attempt to protect their dominant position on the foreign markets against the newcomers. At the same time the lack of qualified export managers represents a significant obstacle in expanding exports of processed foods from developing countries.

51. The successful on-the-job training of export personnel shall be conducted abroad preferably in countries expected to become major outlets for processed foods. Unfortunately no contract covering export marketing training has been identified in the sample. Clauses restricting export rights were often found, especially in the licensing agreements. The above facts are not meant to discourage actions and measures aimed at improving contractual conditions for export marketing training but to point out existing obstacles and diverging interests of the foreign and local partners.

(iv) Training of quality control and research and development personnel

52. The efficient quality control system cannot be implemented without employing personnel with sound formal education. What is also needed is the practical know-how on how to introduce standard procedures for quality tests, methods and laboratory facilities. With respect to quality control one may speak on the relative convergence of interest between supplier and recipient. Thus the contracts surveyed often contained provisions on transmission of all information as well as technical assistance necessary for launching a quality control system. The training component relating to quality control has not, however, been specifically mentioned.

53. Consequently, in the course of negotiations the recipient shall insist on inclusion in the contract of the provisions defining the conditions and scope of on-the-job training at the supplier's quality control laboratory. Such a request shall not be unreasonably withheld by the foreign partner.

54. The establishment and efficient operation of a quality control laboratory may eventually lead to the implementation of more ambitious research programmes. The need for conducting independent research aimed at adjusting products and processes to the conditions prevailing in developing countries is also gaining growing acceptance among suppliers of equipment and technology. On the other hand, there is a strong tendency among leading firms from developed countries to conduct essential research and development predominantly at home. As a result, foreign suppliers offer to conduct specialized research and development works for the benefit of the recipients in their own laboratories for an additional fee. The alternative arrangement, i.e. training of research and development staff to carry out future independent activities, was identified in one licensing agreement only. The respective clause reads as follows:

"LICENSOR agrees to train LICENSEE's specialists at his Research and Development Center in the U.S.A. For purpose of this subparagraph, training at said Research and Development Center shall be defined as formal, structured counselling and education for purposes of transferring technical knowledge. Such training shall be provided at LICENSOR expense, the rate for such training to be the then current Research and Development Center rate. Air and other travel to and from the Research and Development Center as well as living expenses for LICENSOR's personnel shall be at LICENSOR expense".

55. The lack of adequate contractual provisions for research and developing training can only partly be explained by the unfavourable attitude of the foreign suppliers. Equally important is the lack of self-confidence of the local investors in developing countries which typically view independent research and development as the remote alternative which should not be considered at the stage of project preparation and negotiation. Only when such defensive attitudes are overcome does the need for improvement of contractual framework for research and development training in foreign laboratories become evident.

IV. FINANCIAL ASPECTS OF PROJECT-RELATED TRAINING

(i) Introductory remarks

56. According to the general recommendation made in Chapter II, training shall be considered as a crucial component of the industrial projects in the food-processing sector in developing countries. Consequently this should be reflected in the thorough analysis of manpower and training requirements at the preparatory stage as well as in detailed formulation of rights and obligations of partners in contracts concluded with foreign partners for the purpose of implementing industrial projects. In the following section some principal issues relating to financing and payments for project-related training are examined. Although the scope of the paper covering the broad range of alternative contractual arrangements does not allow for detailed recommendations, some general suggestions are made as to the possible approaches to the issues of financing and remuneration for training which might be taken by the partners from developing countries.

(ii) Financing of training component in industrial projects

57. In principle training is covered within the general financial framework negotiated for a given project. Generally it accounts for a small portion of the total project cost so that no special arrangements are necessary. When, however, training represents an important share of the whole package there are essential questions to be resolved, e.g.:

- What are the alternative sources which could be used specifically for financing the training component?

- Shall the preferential terms of financing be extended to training?

- What kind of arrangements shall be used for financing the training component?

It is worth emphasizing that the problems and issues indicated above have been largely overlooked in the course of project preparation and implementation and are only recently gaining attention among investors and government agencies

from developed and developing countries. The recent study commissioned by UNIDO[14/] on the policies of export credit agencies in financing of the training component in industrial projects provides detailed evidence to that effect. It has been shown that although preferential credits offered by exporters of capital goods might be extended to cover training, this is not the case due to conservative policies of the respective government agencies (reflecting the limited impact of training on employment in the donor countries). Consequently quite often training is being financed on less favourable terms than the supply of machinery and equipment.

58. Since the impact of training (whether formal or on-the-job) goes beyond the immediate objectives of a given project and shall be seen as an investment in infrastructure (usually receiving preferential treatment) this opens the framework for various mixed financial arrangements. Within the bilateral framework (between developed and developing countries) the combination of private investment and public aid is often used for financing industrial projects. The training component shall definitely receive priority for being covered from public aid sources. The mixed arrangement involving also multilateral funds can be used especially in those countries where existing institutional machinery enables full integration of individual projects within national or regional manpower development programmes. A typical example is the establishment of a large training centre exceeding the operational needs of the plant with the aim at providing training for the whole region. Under such circumstances it might be possible to draw funds from multilateral sources (e.g. World Bank) and used for the development of the national educational systems. Similar contributions can be sought from local public funds administered by specialized government agencies in the recipient countries.

59. The above comments are intended to show only the examples of alternative forms and sources of financing of training components which are seldom exploited. The success in obtaining additional sources on favourable terms depends substantially on the preparation of a well-defined programme covering goals, scope, forms, methods, resources and cost implications of the training component.

14/ J. Pearce, "Policies of export credit agencies in financing of training component in industrial projects", UNIDO/PC.54, 1982.

(iii) Forms and methods of remunerating training services

60. In the first place one should stress the existing variety of forms and methods of remuneration of training services depending principally on the type of contractual arrangement used for the implementation of industrial projects. In complex contracts covering e.g. turn-key deliveries, training is normally compensated for under general pricing formulae, i.e. lump-sum or cost-reimbursable payment. Under the former method the training component may not be specified separately. However a breakdown of the total cost for each component is usually taken into consideration in the course of negotiations. Similarly in the licensing agreements training might be covered by basic payment formulae (lump-sum , royalty or a combination of both) or remunerated separately at the cost reimbursable basis. In the technical assistance and service agreements no distinction is normally made between remuneration for training and other services.

61. Before going into a further analysis it is reasonable to assume that within the commercial framework the recipient will always be charged for training provided by the supplier, notwithstanding the agreed payment formulae, as the relevant cost components, if not shown separately, can always be included within other categories. Bearing in mind the arguments presented in Chapter II it is recommended that the value of training services be specified separately in the course of negotiations and if necessary also in the final text of the agreement. Secondly, while evaluating the payments to be made vis-à-vis expected results, the "full cost" principle be adopted which calls for calculating not only personnel fees for supplier's personnel, but also subsistence allowance, travel expenditures, cost of training materials and other out-of-pocket expenses. The principal strategy of the recipient in the course of the negotiations is to achieve an adequate balance between payments and the quantity and quality of services, by eliminating excessive and/or duplicating payments resulting from inadequate formulation of the respective provisions in the contracts.

(iv) Remuneration for training in the recipient country

62. While evaluating and negotiating contract conditions for the remuneration of training services, the recipient has to resolve first which cost elements should be taken in order to arrive at the "full cost". Depending on the type

of the arrangement, different pricing methods might be used. Let us take first the agreements made specifically for the provision of technical services including training. The full cost comprises personnel fees based on the time rate and differentiated by category and/or experience of foreign experts providing training of the local personnel. Additionally, the recipient is expected to reimburse the cost of travel, daily living expenses, accommodation and other out-of-pocket expenses. However, personnel costs for training under technology transfer agreements or contracts for the delivery of capital goods can be interpreted in a different way. It might be argued that such services are already covered in the basic pricing formulae (royalty, lump-sum) and the client shall reimburse only additional costs which are directly linked to their provision such as travel expenditures and subsistence allowance. In fact such arrangements are often found in the licensing agreements where the period of stay of the foreign personnel in the host country is relatively short.

63. Even such standard cost elements as subsistence or travel expenditures ought to be carefully screened in order to avoid excessive payments. In this case it is suggested that the UN rates for subsistence allowance be used for comparative analysis. Reimbursement of economy class rates for air travel (eventually business class) but not first-class rates became a widely accepted standard. With respect to teaching materials and equipment provided by the supplier the existing practice is quite uniform as the cost-reimbursable formula is most often used.

64. In view of the lack of widely accepted standard rules of remuneration for training services, the adequate formulation and interpretation of the "full cost" formula to be used in a given contract has to be seen as a crucial element in contract preparation, evaluation and negotiation as it may contribute to the elimination of repetitive and excessive payments for such services.

(v) Remuneration for training abroad

65. With respect to project-related training offered in the supplier's country (especially at his production facilities) there is a great deal of uniformity of pricing methods under contractual arrangements most often used in the food-processing industry. First, no charges are being made for the services

of the supplier's staff directly involved in conducting or supervising such training. On the other hand the recipient covers as a rule, the cost of travel, accommodation, etc. for his staff undergoing training abroad. Sometimes the supplier makes available his internal accommodation facilities (hotel, cafeteria, etc.) which may substantially decrease the cost of training conducted abroad.

66. In some cases, especially when highly specialized training is being arranged, separate fees might be charged for such services. This was found in one agreement containing specific provisions on training of research and development personnel at the supplier's laboratory. This seems to be rather exceptional but again no standard rules have been identified so far as how to deal with specialized training offered in addition to the basic programme.

SUMMARY AND CONCLUSIONS

67. The analysis of contractual arrangements in industrial projects involving foreign inputs in the food-processing industry has led to the general conclusion that the training component has not been adequately covered by the respective contract clauses while taking into consideration the interest of the individual investor and the needs of developing countries in that respect. Consequently, the potentially crucial supplement of the national manpower development programmes in the form of project-related training becomes largely underutilized. Moreover, training in industrial projects is often limited to building up skills for operation, maintenance and management of production facilities. Thus the integrated character of food-processing has not been reflected in the area of training as the respective provisions on building-up "auxilliary" skills like those of the suppliers are not, as a rule, included in the whole package.

68. The above situation results principally from the low priority given to the training component at the stage of project preparation and evaluation as well as reflecting inadequate negotiating capabilities of investors from developing countries while drawing up contracts with foreign partners and making financial arrangements for project implementation. It seems therefore that actions aimed at changing the attitudes of local investors towards giving higher priority to training as well as improving their negotiating skills shall

bring the most promising effects. This might be achieved, inter alia, through the following measures and activities:

- Verification and adjustment of the manuals, teaching materials and programmes of specialized courses and seminars for the preparation and evaluation of industrial projects aimed at extending the coverage of the manpower and training issues;

- Elaboration of various tools which would improve negotiating capabilities of partners from developing countries such as guidelines, checklists and model clauses relating to training. Such tools shall cover not only basic training but also additional specialized services while extending the integrated approach to the training component. Due attention ought to be given to financial matters relating to training.

69. The measures outlined above might be further strengthened by the corresponding actions, policies and institutional arrangements by the governments of developing countries. In the first place the rules and procedures for the evaluation and approval of industrial projects and contracts concluded with foreign partners shall be adjusted so as to ensure adequate coverage of the training component.

70. The programme of action aimed at improving contractual conditions for the provision of training in industrial projects opens a broad framework for international co-operation. In view of the vast experience accumulated by UNIDO and the existing institutional arrangements, this Organization is expected to play a leading role in co-ordinating such co-operation.